Best Barns USA
Assembly Book

Revised February 7, 2014

the Millcreek-R   12'x 20'

Manufactured by Reynolds Building Systems, Inc.

205 Arlington Drive   Greenville, PA 16125   724-646-3775

BEST BARNS
USA
Quality Do-it-yourself Barn Kits

DIY

IMPORTANT INFORMATION ABOUT YOUR SHED KIT

Thank you for purchasing our shed kit. These instructions will construct a 12'x20' building. **If you received two books, use the one with the latest revision date.**

Read the instructions before starting the assembly of the building. If you have any questions about assembling the kit, call 800-245-1577. Business hours (8:00-5:00 ET) Monday thru Friday. After business hours call 724-866-HELP (4357) or email to help@barnkits.com.

The material that is included in our kit is listed on the back page. The optional floor package, if purchased, will be supplied by a local lumber supplier.

Our kit does not include the shingles, the quantity needed is listed on the back page. The siding is primed. You will need to apply a finish coat using latex acrylic paint.

Some of the framing lumber was used in the shipping pallet. Unpack the material from the pallets, then unscrew the bottom runners from the 2x4s. The bit for the screws is packed in the hardware bag. This material is used for wall bracing loft beam and support boards.

Most buildings are installed on a wood floor and the siding was designed to extend over the wood flooring. If the foundation is a concrete floor cut the siding flush with the bottom of the wall plate to prevent the concrete from contacting the siding.

Stacking the boards, according to size, will make them easier to find when needed. Some boards have colored ends. All the wall studs have black ends, stack these boards together**. Do Not** discard any material until your building is complete.

Before you begin construction, be sure to study this assembly manual. Also, obtain a building permit and check all pertinent building code regulations.

Thank you for your purchase.   Bill & Linda Rinella, owners

To identify which edge we want you to use, we will refer to the edge as either the 'LAP' Edge or the Tongue Edge. Nail siding with 8d galv. nails, spaced 12" apart.

LAP Edge

Tongue Edge

← measure from here →
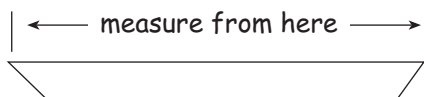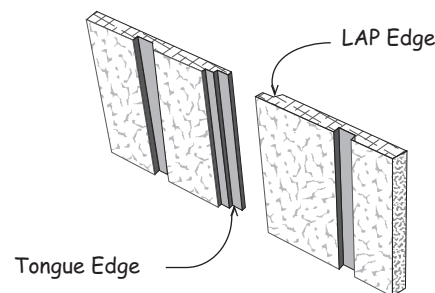
When measurements are given for a board length or width, it is from the longest side.

Tool List

- ☐ Hammer & Hand Saw
- ☐ Framing Square & Level
- ☐ Power Circular Saw
- ☐ Power Drill/screwdriver
- ☐ Measuring Tape
- ☐ 2-8' Step Ladders

Always wear safety glasses when cutting or nailing!

Constructing Details for Deluxe Floor System

Deluxe floors include 4x4 runners, standard floors do not.

Foundation size is 12'-0" x 20'-0". Check local building codes in your area, the construction may have to change. For a concrete slab, install sill sealer as a moisture barrier between the concrete and the wall plates. Foam sill sealer can be purchased at home centers in rolls 3-1/2" or wider.

1. Stagger the 4x4 timbers as shown below. Cut (2) two 2x4-8' boards into 2' long blocks to secure the 4x4s where they butt together.
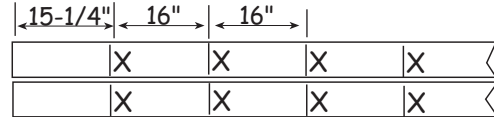
2. Cut (2) two 2x4-8' to a length of 8' -0". They will be used for the joist headers. Layout, from left, for 16" on center joist spacing. 'X' marks where floor joist will be placed.

3. Cut (17) seventeen 2x4-12' treated boards to 11' -9". These will be the floor joists. *Treated lumber may be thicker than 1-1/2". Take this into account when cutting the length of floor joists. Shorten joist measurements if necessary to obtain 12'-0" building width.*

4. Install the floor joists cut above between the 8' joist headers. Secure with 16d galv. deck nails.

5. Place floor assembly over the 4x4s. Square floor assembly. Measure the floor diagonally (corner to corner). These measurements will be the same if the floor is square. It should measure 173". Toenail frame to the 4x4 runners.
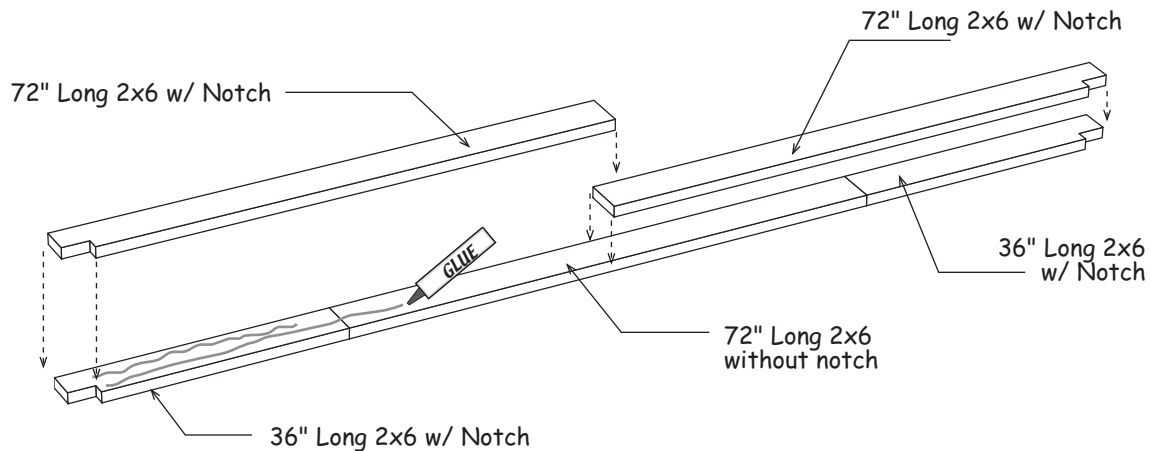
Front Floor Section
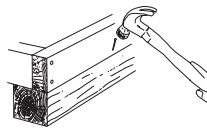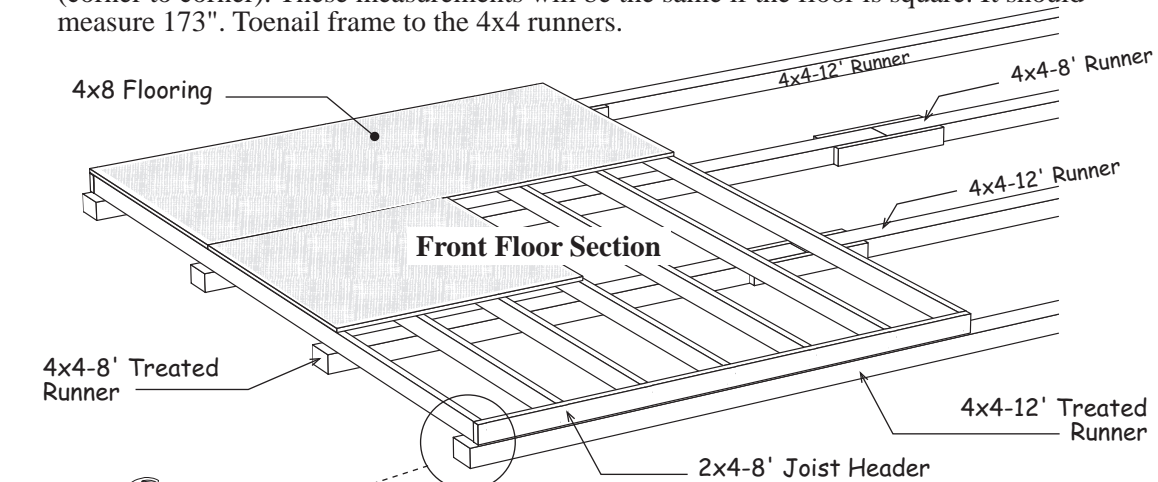
Assembly Instructions for Rear Floor Section

6. Cut (2) two 2x4-12' to a length of 12' -0". Layout for 16" joist spacing, *see above*.

7. Install floor joists between the joist headers. Square floor section. Measurement will be 203-5/8". Install this section against the section assembled above.

8. Install 4x8 flooring over the 2x4s. Use 8d galv. spiral nails.

Material Description	12' x 20'	
2x4 Joist Headers	2 pcs.	8'
2x4 Blocking	2 pcs.	8'
2x4 Joist Headers	2 pcs.	12'
2x4 Floor Joist	17 pcs.	12'
4x4 Treated Runners	4 pcs.	8'
4x4 Treated Runners	4 pcs.	12'
Flooring 5/8" or 3/4"	8 pcs.	4x8
Screw Floor Nails	4 lb.	8d
Galv. Box Nails	5 lb.	16d

Step 1   Assemble Loft Beams

1. Locate (2) two 36" long 2x6 boards with a notch on one end and a 2x6 board <u>without</u> a notch. Position these 2x6 boards on a flat surface as shown below.

2. Apply a coat of glue to the top surface using wood glue supplied in kit.

3. Locate (2) two 72" long 2x6 boards with a notch on one end. Install these 2x6 boards over the bottom boards.

72" Long 2x6 w/ Notch

72" Long 2x6 w/ Notch

36" Long 2x6 w/ Notch

GLUE

72" Long 2x6 without notch

36" Long 2x6 w/ Notch

4. To provide additional strength, install 2-1/2" wood screws spaced 16" apart as shown below.

16"   16"   16"

2x6 Beam

5. Repeat steps to assemble another 2x6 beam.

Step 2   Assemble Gable Plates

1. Butt (2) two 72" long 2x4s together and secure them by nailing a 3-1/2" x 42-3/4" long plywood gusset across the top where they butt together. Use glue and 6d common nails. Install the gusset with the center <u>line lined</u> up where the 2x4 meet.
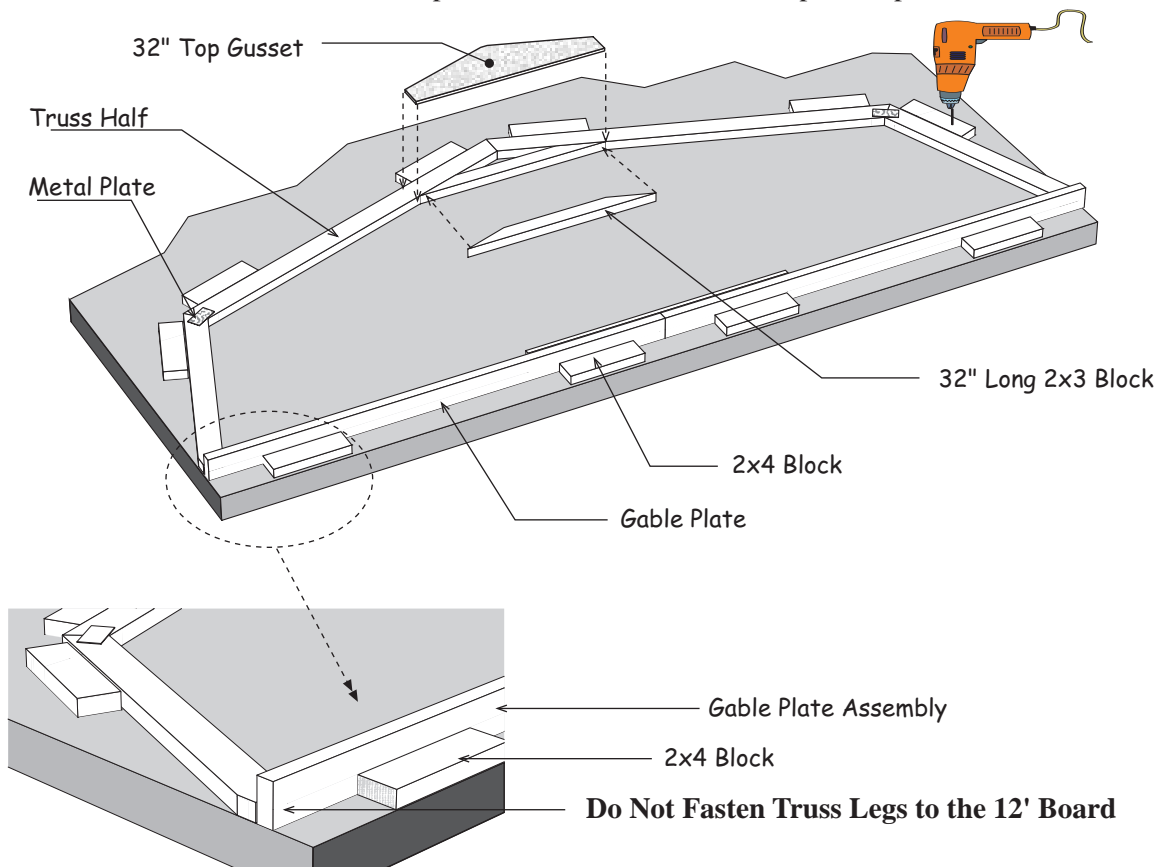
3/4" Plywood Gusset

72" long 2x4
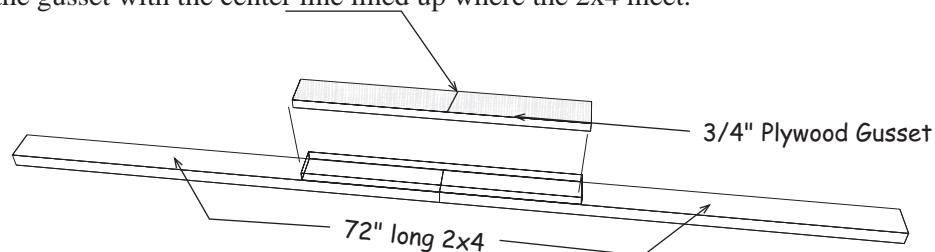
2. Repeat to assemble another Gable Plate.

Step 3   Assemble Trusses

☞ Building Tip: To aid in the assembly of the trusses, temporarily screw 2x4 blocks to the floor. There are short 2x4s, *that may have an angle on one end*, supplied in kit. This will insure that all the trusses are assembled the same.

1. Position a Gable Plate (from **Step 2**) on the floor with the narrow edge side down. Use 2x4 blocks to hold the 2x4 plate straight.

2. Position (2) two truss halves (*2x4s connected with a metal plate*) with the short legs against the 2x4 Gable Plate Assembly. **DO NOT** attach the Gable Plate Assembly to the truss. It is temporarily used to help hold the 2x4 truss parts in place, it will be used in a later step.

3. Secure 2x4 blocks around the perimeter of truss to hold truss parts in place.

32" Top Gusset

Truss Half

Metal Plate

32" Long 2x3 Block

2x4 Block

Gable Plate

Gable Plate Assembly

2x4 Block

Do Not Fasten Truss Legs to the 12' Board

4. Nail the 2x3-32" board where the trusses meet at the top. Secure with a 32" wood gusset. Apply wood glue between the gusset and 2x4s. Nail gusset using (20) twenty 6d common nails.

5. Turn the truss over and install a gusset to the other side of the truss.

6. Repeat to assemble (8) eight more trusses.

☞ Set these trusses aside. **DO NOT use trusses for assembling the roof gables.**

Step 4   Assemble Roof Gables

1. Place (2) two 61" long and 34-3/4" long 2x4 gable rafters in the truss jig and secure with 1"x4" drive-on plates. Nail a 32" long 2x3 board at the ridge to help secure the top.

2. Cut a 42-3/4" long 2x4 to length and install in the center of the gable. Toenail the bottom to the plywood gusset with 10d sinkers. Secure the top with a barbed metal plate.

3. Butt (2) two 40-3/4" long 2x4s against the wood gusset. Secure the bottom to the 2x4 plate by nailing through the plate with (2) two 10d sinkers. Secure the top with barbed plates.

4. Install (2) two 30-3/4" long 2x4s the same way.

5. Nail truss leg to 12' Gable Plate with 10d sinkers.

Wood Gusset

42-3/4" Long 2x4

40-3/4" Long 2x4

30-3/4" Long 2x4

34-3/4" Long 2x4 Rafter

1"x4" Drive-on Plate

32" Long 2x3 Board

64" Long 2x4 Gable Rafter
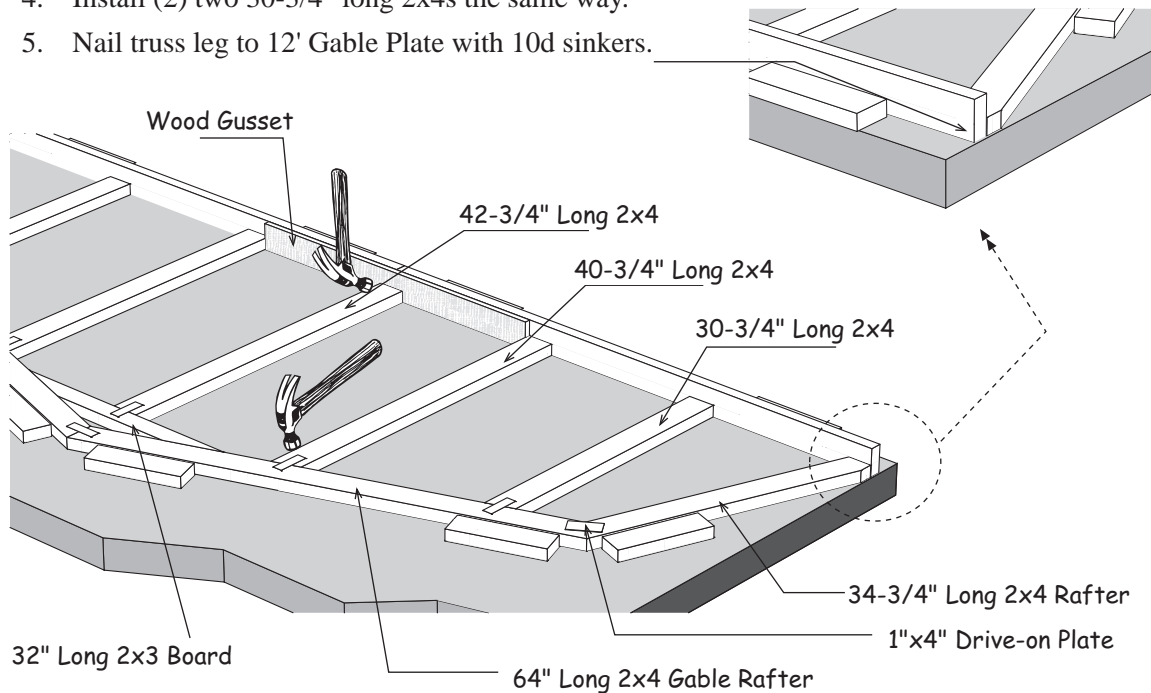
6. Repeat steps to assemble the front roof gable. **Read note below:**
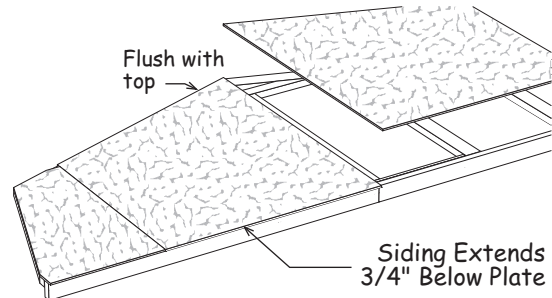
☞ *If you want the loft doors to open, repeat steps 1-5 substituting number 2 with directions below:*

32"
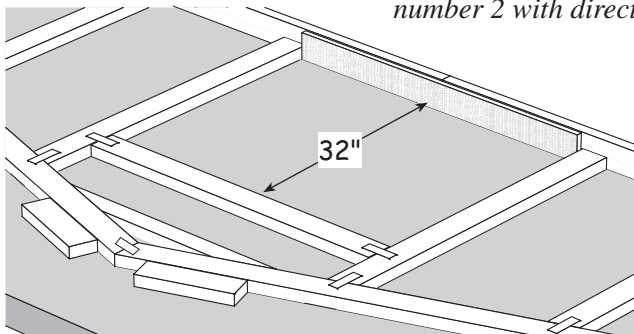
2. Install a 42-3/4" long 2x4 board in the opening and secure with 1"x4" metal barbed plates. Install this board 32" from the wood gusset.

Step 5A   Apply Siding to Rear Roof Gable

1. Remove 2x4 blocks and turn gable frame over.

2. Install pre-cut siding on rear gable. Bottom of
    siding extends 3/4" below Gable Plate. Use 6d
    galv. nails spaced 12" apart.

3. The rear gable trim is installed in **Step 17**,
    however you can install the trim now.

Flush with
top

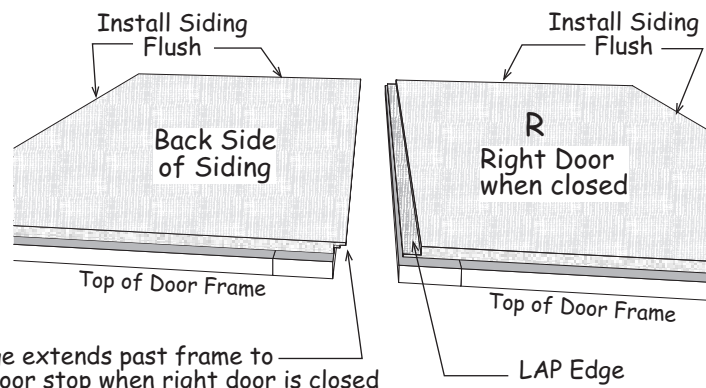Siding Extends
3/4" Below Plate

Step 5B   Side Front Roof Gables

1. Install siding on front gable. You can attach the loft door frames to the gable to create a
    decorative look or if you want the loft doors to open, cut the siding from the opening. Cut
    the siding flush with the sides of the opening. Cut the siding length to 34-3/4". Mark the
    siding cut from the right siding panel with the letter 'R'.

2. Install (2) two 61" and (2) two 43-1/2" long 2x3s on the
    <u>front gable</u> flush with the top of the gable frame. Install
    the top 2x3s with the blue ends together. Use 10d sinkers.

Blue ends

61" Long 2x3

43-1/2" Long 2x3

34-3/4"

R

Recut to
20-3/4"

Right door
has Lap edge
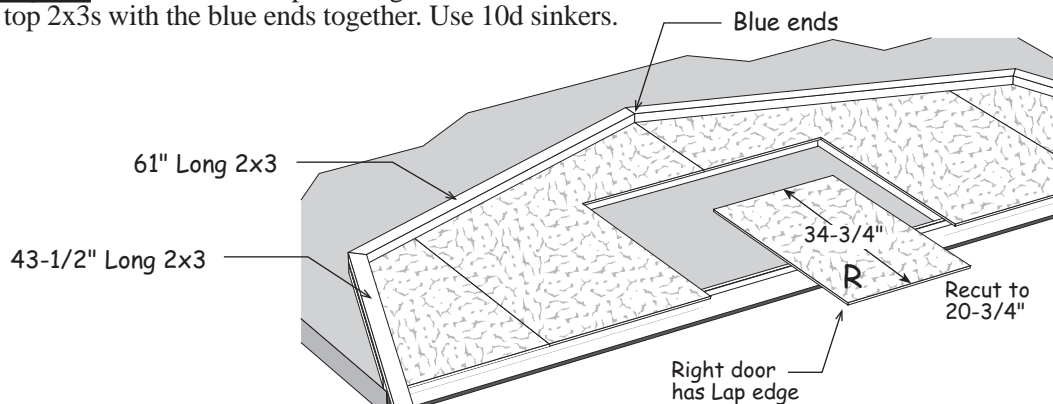
3. Recut the siding panel marked
    'R' . *Measure from 'LAP' edge*
    and cut the width to 20-3/4".

4. Install panels on door frames,
    with the cut edges flush with
    bottom and side of frames. The
    frames will extend 3/4" above
    the siding at the top.

    Screw through the back of
    siding with 1" wood screws.

Install Siding
Flush

Back Side
of Siding

Top of Door Frame

Tongue Edge extends past frame to
creates a door stop when right door is closed

Install Siding
Flush

R
Right Door
when closed

Top of Door Frame

LAP Edge

Step 6A   Assemble 10' Long Sidewalls

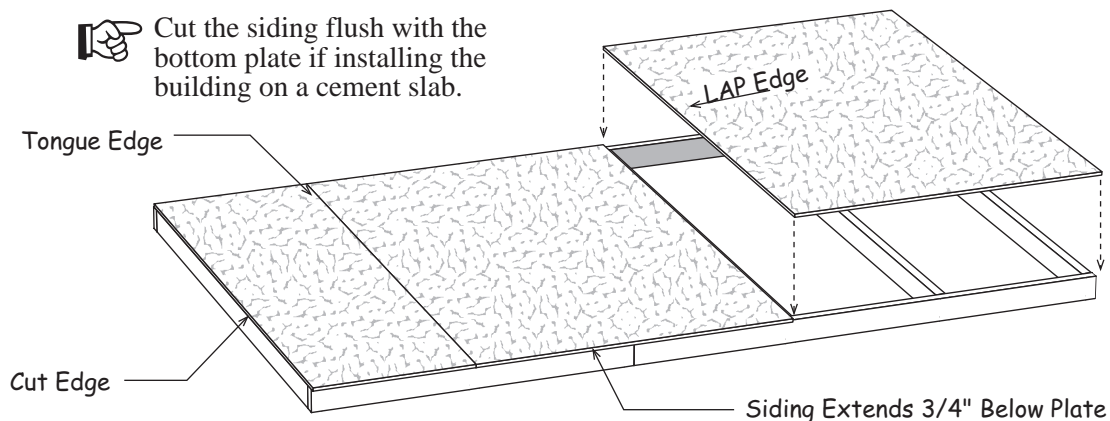1. Position (2) two 2x4-48" boards and (2) two 2x4-72" boards together and indicate with 'X' marks where the wall studs will be located.

48" Wall Plate   72" Wall Plate

| X | X | X | | X | X | X | X |
| X | X | X | | X | X | X | X |

23-1/4"   23-1/4"   24"
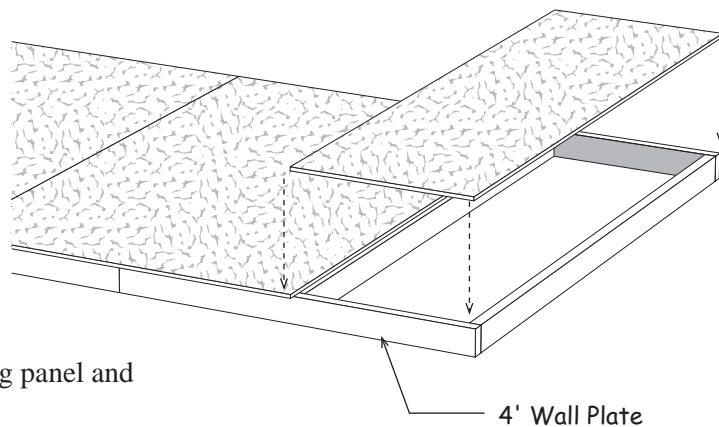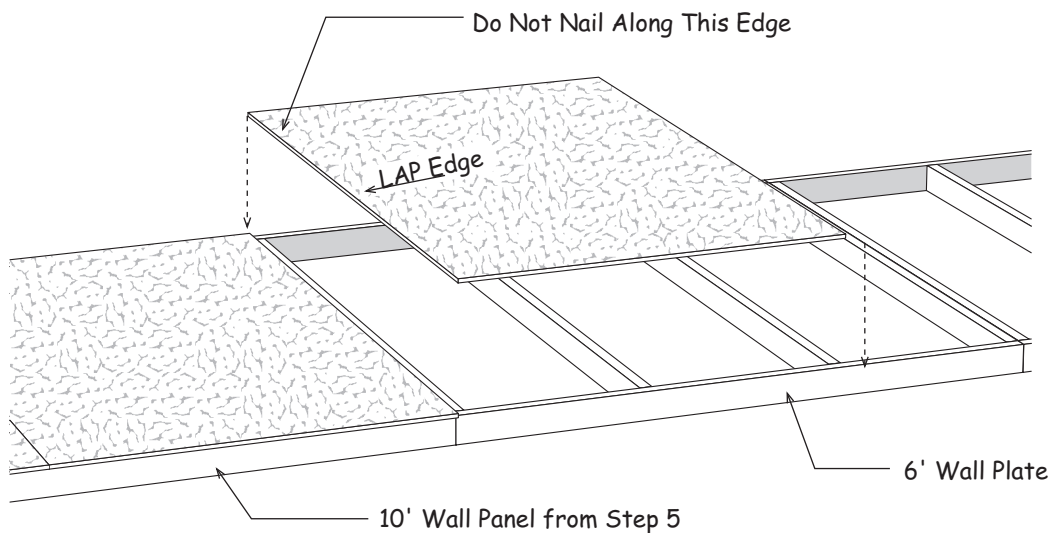
48" Wall Plate
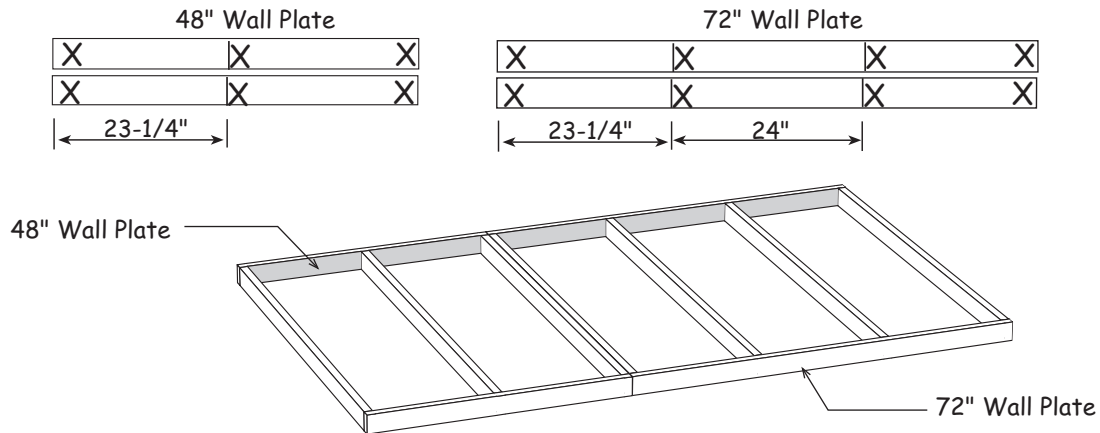
72" Wall Plate

2. Install (7) seven 80-1/4" long wall studs between the wall plates. Use (2) two 10d sinkers at each end of stud. Nail the frames together with 10d sinkers.

3. Repeat to assemble (3) three more 10' long sidewall frames. **You will need to cut (2) two 64" long 2x4s to a length of 48" to assemble the last 48" wall frame**.

4. Cut one of the 48" wide siding panels in half lengthways.

5. Square wall frame. *Measure diagonally (corner to corner). The measurements will be the same when the wall is square*.

6. Select the 2' wide panel, *with the 'tongue' edge*, and install this panel with the 'cut' edge 'flush with the end of the wall and extending 3/4" below the bottom plate.

7. Install (2) two more siding panels.

☞ Cut the siding flush with the bottom plate if installing the building on a cement slab.

LAP Edge

Tongue Edge

Cut Edge

Siding Extends 3/4" Below Plate

8. Select (1) one of the 10' wall frames and repeat to apply siding to another sidewall 10' frame.
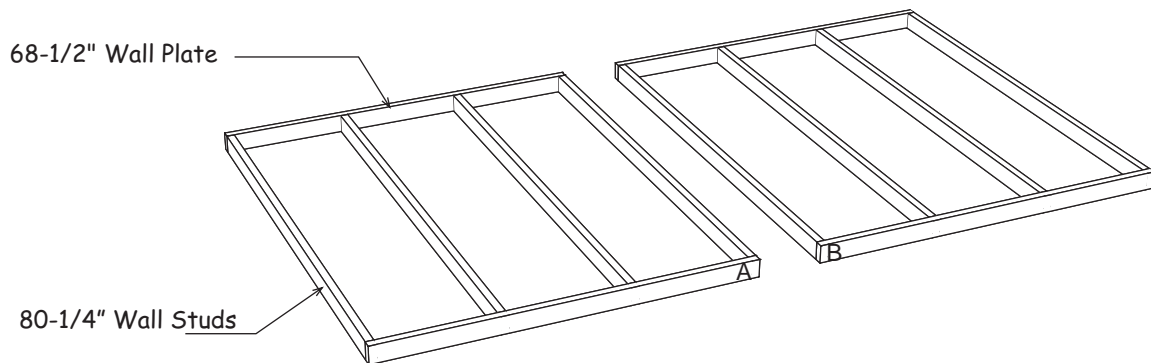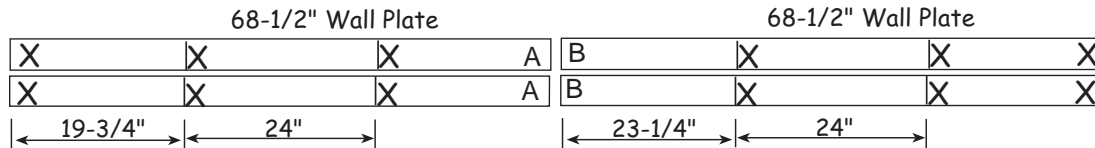
Step 6B   Assemble Sidewalls for 20' Building Length

1.   Select one of the 10' sidewalls assembled in **Step 6**. Butt a 10' wall frame against the wall with siding. DO NOT nail these frames together so they can be separated later.

2.   Square the wall frame. Install a full width siding panel but do not nail along the long edge that overlaps the 10' wall frame. You can nail this edge after the wall panels are installed. This will enable you to separate the wall panels making them easier to handle.

Do Not Nail Along This Edge

LAP Edge

6' Wall Plate

10' Wall Panel from Step 5

3.   Install another full width siding panel and the 2' wide siding panel.

4' Wall Plate

4.   Repeat to apply siding to the other 10' wall frame.

Step 7   Assemble Back Wall

1. Position (4) four 2x4x68-1/2" boards together and indicate with 'X' marks where the wall studs will be located. Mark the ends that will butt together with the letters 'A' and 'B'.

2. Install (8) eight 80-1/4" long wall studs, between the wall plates, over the 'X' marks and where the plates meet. Use (2) two 10d sinkers at each end of stud. Nail wall sections together using 10d sinkers.

68-1/2" Wall Plate   68-1/2" Wall Plate

| X | | X | | X | | A | B | | X | | X | | X |
| X | | X | | X | | A | B | | X | | X | | X |

|← 19-3/4" →|← 24" →| |← 23-1/4" →|← 24" →|

68-1/2" Wall Plate

80-1/4" Wall Studs

3.   Square wall frame. *Measure diagonally (corner to corner). The measurements will be the same when the wall is square.*

4. Install the 1st siding panel with the 'LAP' edge extending 3-1/2" past the wall frame. The bottom will extend 3/4" below the bottom plate. Tip: Use 3/4" trim board as a gauge.

5. Install the other siding panels. Cut the last panel to extend 3-1/2" beyond the wall frame.

LAP
Edge

Siding Extends 3-1/2"
Past 2x4 Stud

Siding to extend 3/4"
below bottom plate
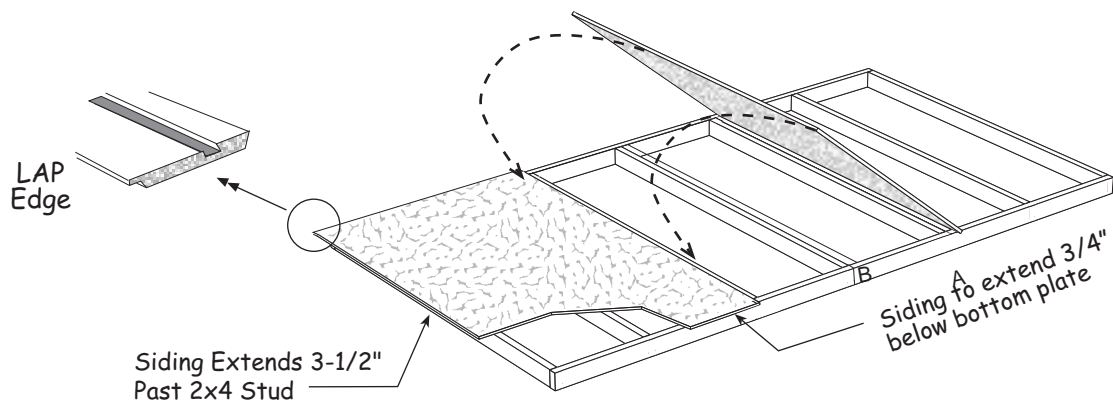
Step 8A   Assemble Door Header

Assemble door header using (2) two 75" long 2x6 boards and a 75" OSB filler panel. Apply wood glue between OSB and boards. Nail header together with 10d sinkers. Use (12) twelve nails on each side.

75" Long 2x6

OSB Filler
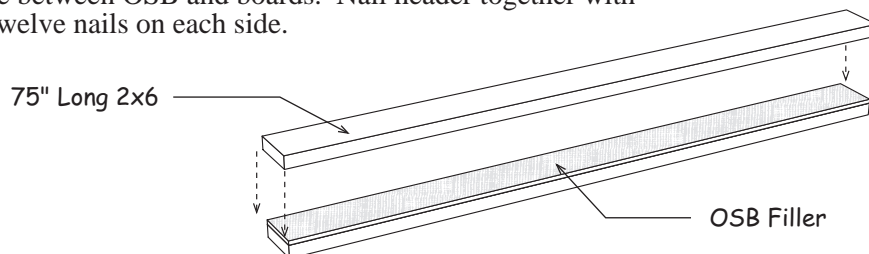
Step 8B   Assemble Bottom Wall Plate (offset doors)

☞   If you want the barn doors in the center of the front wall, go to **Step 8C**

1. Butt (2) two 68-1/2" boards together to make bottom wall plate. Secure bottom plate with a a 2x4-6' board (used as door spacer) installed 56-1/2" from the end of the 2x4 wall plate. Secure with (4) four 2-1/2" wood screws.

2. Mark locations for the wall studs with 'X' marks.

56-1/2" To Door Spacer

24"

Door Spacer

19-3/4"

Bottom Wall Plate Assembly
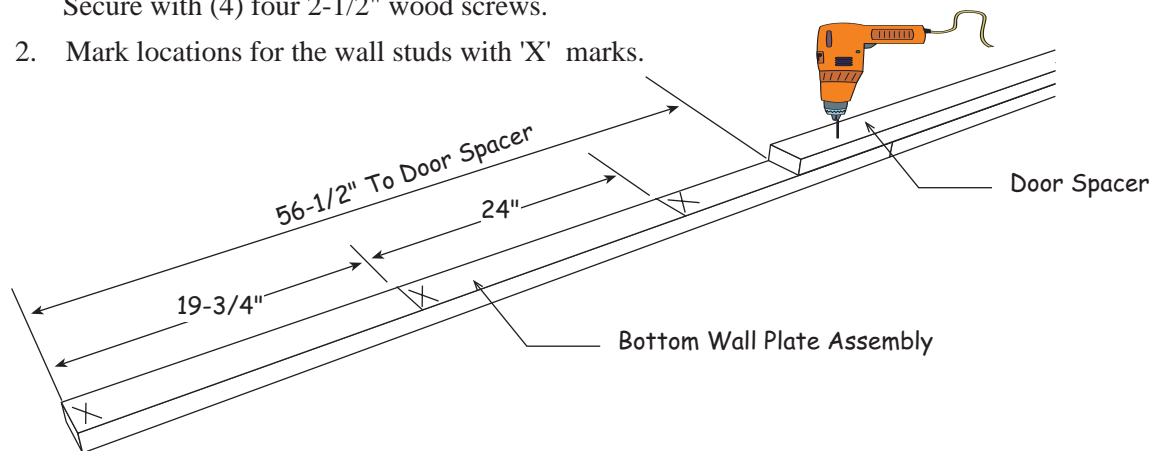
Step 8C   Assemble Bottom Wall Plate (doors centered)

Butt (2) two 68-1/2" boards together. Center a 2x4-6' board (used as door spacer) on top and screw the boards together using (4) four 2-1/2" wood screws. Mark stud spacing as shown below.

2x4 - 6' Board (Door Spacer)

32-1/2"

19-3/4"

2x4 - 68-1/2 Boards

19-3/4"
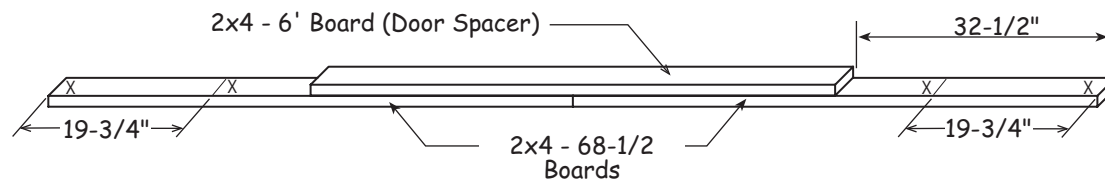
Step 9A   Assemble Front Wall (offset doors)

1. Gather the material listed below to assemble the door wall.

2. Install (4) four 80-1/4" wall studs over the 'X' marks.

3. Install the wall studs with the door jacks on each side of the door spacer.

4. Install door header on the door jacks.

Material List	
2	68-1/2" Wall Plates
4	80-1/4' Wall Studs
2	80-1/4' Wall Studs w/ door jacks attached
1	Door Header from **Step 8A**
1	Bottom Plate from **Step 8B**

✳ Check measurements. They should be the same or the door opening will not be square!
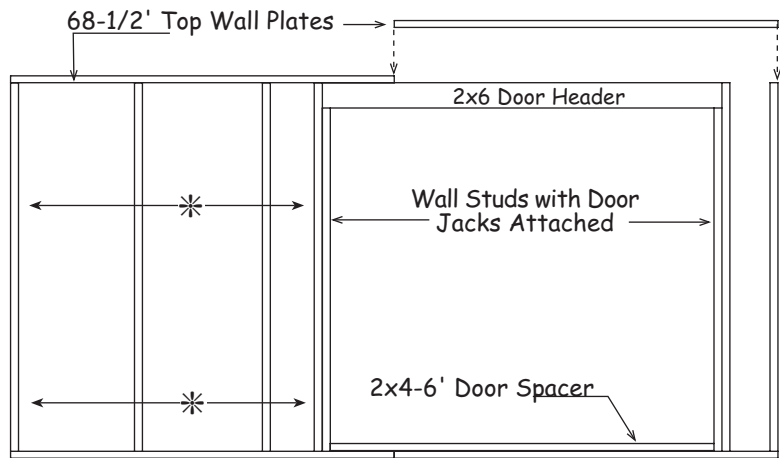
☞ **To install doors offset to the left, flip wall before applying the siding.**

5. Install a 12" and a full width siding panel on the left corner (right corner if installing door on left side). The cut edge on the 12" siding should be flush with the left side of the door opening and extend 3-1/2" past the frame. **Do not** nail the 'LAP' edge until the other siding is applied. Position the full width siding panel and nail along the 'LAP' edge of the 12" wide panel.

6. Install (2) two 7-3/4" high pre-cut siding panels over the door opening. The siding will extend 3/4" below the door header.

7. Install a 12-3/4" wide siding panel on the end of the wall frame. The siding will extend 3-1/2" beyond the 2x4 wall frame.

Optional windows can be installed now or later.

Step 9B   Assemble Front Wall (doors centered)

1. Gather the material listed below to assemble the door wall.

2. Install (4) four 80-1/4" wall studs over the 'X' marks.

3. Install the wall studs with the door jacks on each side of the door spacer.

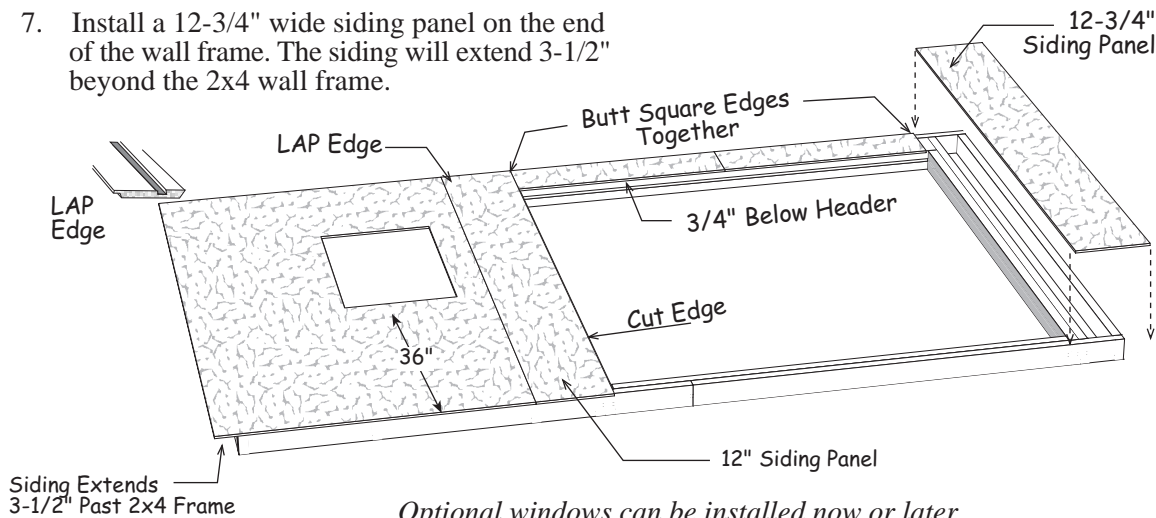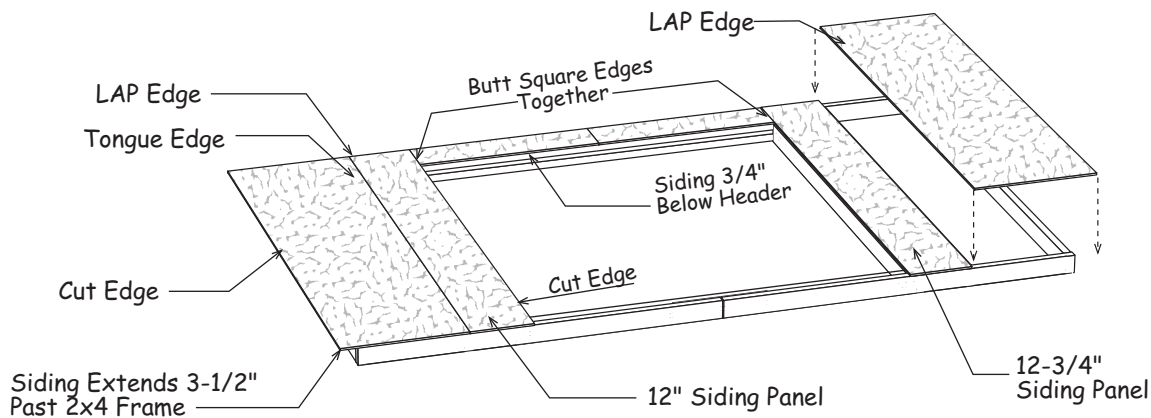4. Install door header on the door jacks.

Material List	
2	68-1/2" Wall Plates
4	80-1/4' Wall Studs
2	80-1/4' Wall Studs w/ door jacks attached
1	Door Header from **Step 8A**
1	Bottom Plate from **Step 8C**

✳ Check measurements. They should be the same or the door opening will not be square!

68-1/2" Top Plate

2x6 Door Header

Wall Studs with Door Jacks Attached

2x4-6' Door Spacer

2x4 Bottom Plate w/ Door Spacer
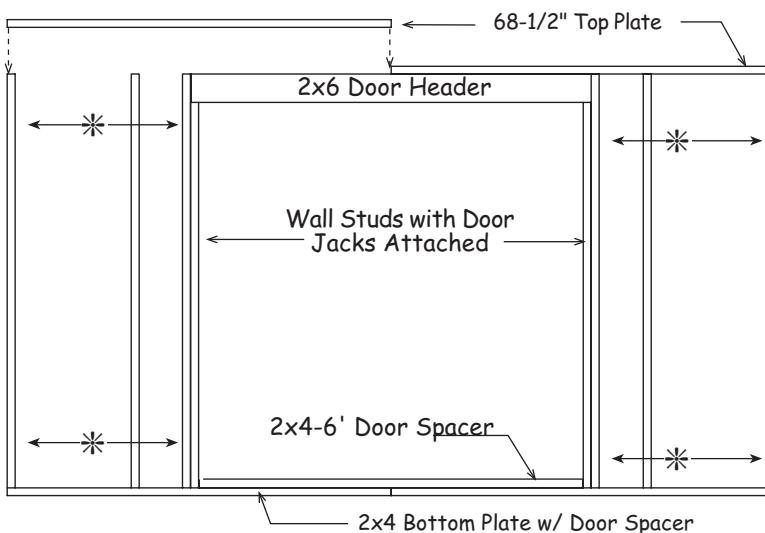
5. Locate a 12" siding panel that has a 'LAP' edge. Position the 'cut' edge flush with the left side of the door opening. **Do not** nail the 'LAP' edge until the other siding is applied.

6. Cut a full width siding panel in half lengthways. Select the siding with the 'tongue' edge and install this siding panel at the left end of the wall frame.

7. Install (2) two 7-3/4" pre-cut siding panels over the door opening, flush with the top plate.

8. Install a 12-34" siding panel with the 'cut' edge flush with the side of the door opening.

9. Install the last siding panel. It will extend 3-1/2" beyond the 2x4 wall frame.

LAP Edge

Butt Square Edges Together

LAP Edge

Tongue Edge

Siding 3/4" Below Header

Cut Edge

Cut Edge

12-3/4" Siding Panel

Siding Extends 3-1/2" Past 2x4 Frame

12" Siding Panel

Step 10   Set Walls

1. Set the back wall panel between the sidewalls. Secure wall panels together at the corners. Use (4) four 10d coated nails per corner. Nail wall panels to the floor. Nail through the bottom plate. Space 10d sinkers 24" apart.

2. Install the front wall frame between the sidewalls.

3. Nail along the siding edge where the sidewall siding panels overlap.

4. Disassemble the other shipping pallet and use the 2x4s to brace the wall to hold them straight.

10' Long Rear
Wall Panel

Nail Along
Siding Edge

Front Wall Frame

2x4 Wall
Brace
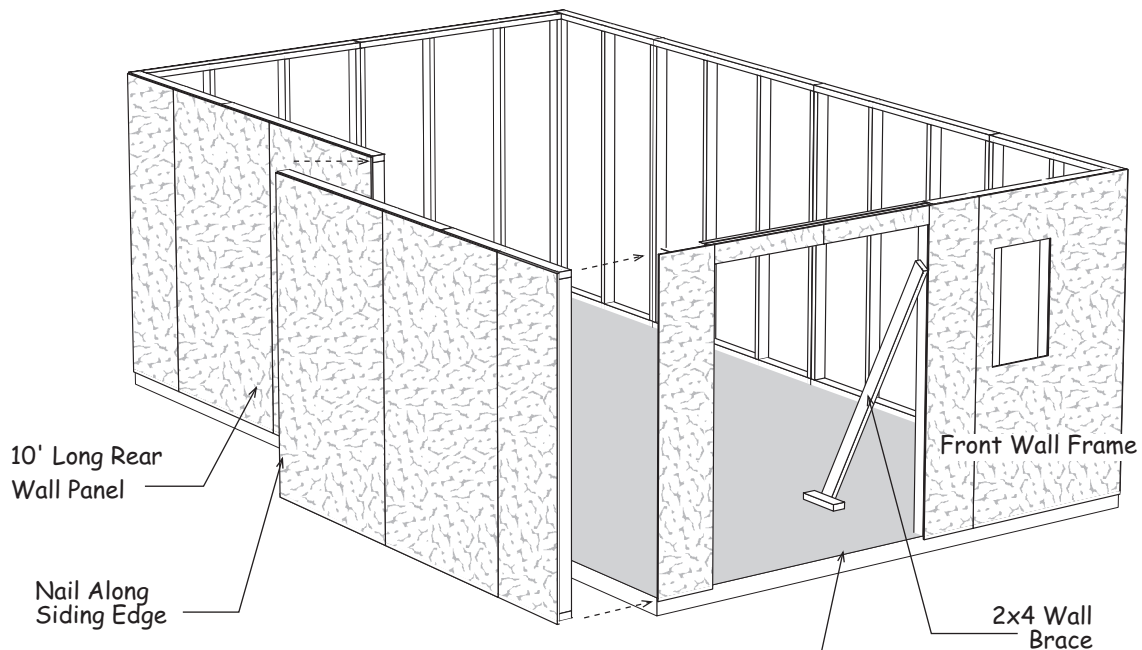
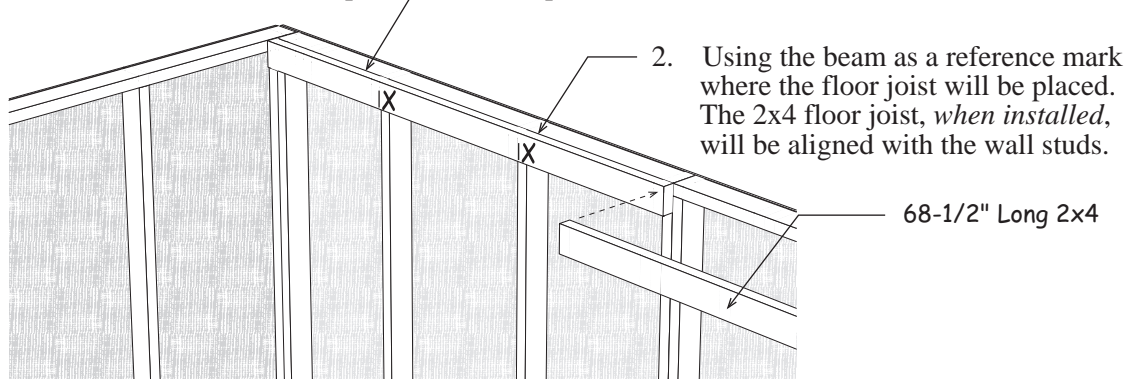5. Cut and remove the bottom 2x4 in the door opening.

Step 11   Layout Loft Joist Spacing on 2x6 Beam

Layout both beams for the spacing of the loft floor joists.
The 'X' marks where the floor joist will be placed.

23-1/4"

24"

24"
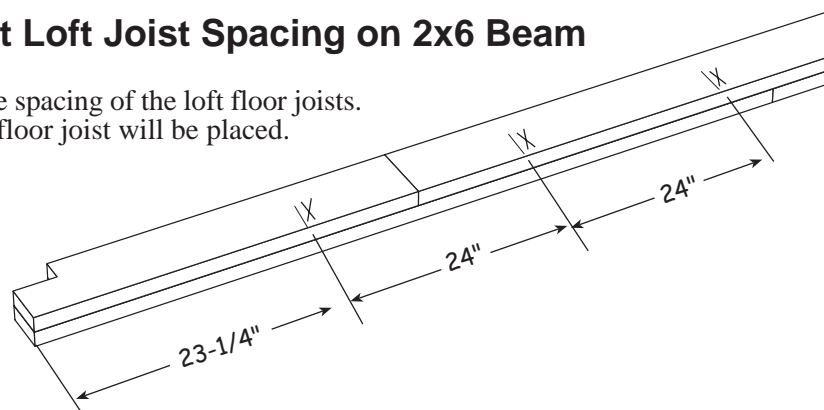
Step 12   Install Loft Floor Joist Headers

1. Install (2) two 68-1/2" long 2x4s on the back wall to support the floor joist. Install the 2x4s flush with the top of the 2x4 wall plate. Secure to wall studs with 10d sinkers.

2. Using the beam as a reference mark where the floor joist will be placed. The 2x4 floor joist, *when installed*, will be aligned with the wall studs.

68-1/2" Long 2x4

3. Repeat to install joist header support boards on the front wall.

Step 13   Install 2x6 Loft Beams

1. Disassemble the pallet the siding and roof sheathing was shipped on. Cut the (4) 2x4 boards to a length of 76-1/4".

2. Install the rear 2x6 beam, 84" from the 2x4 joist header boards, with the 'X' marks on the beam facing the back wall. You can use a 2x4-7' board as a gauge to properly space the beam. Refer to **Step 14** to see how the loft floor joist will be installed.

   Place the notch under the top plate and support the beam with one of the 76-1/4" long 2x4s. Further secure the beam with a 3" wood screw through the top of the wall plate.

84" to 2x4 Joist Header

2x6 Beam

Back Wall

76-1/4" 2x4 Board
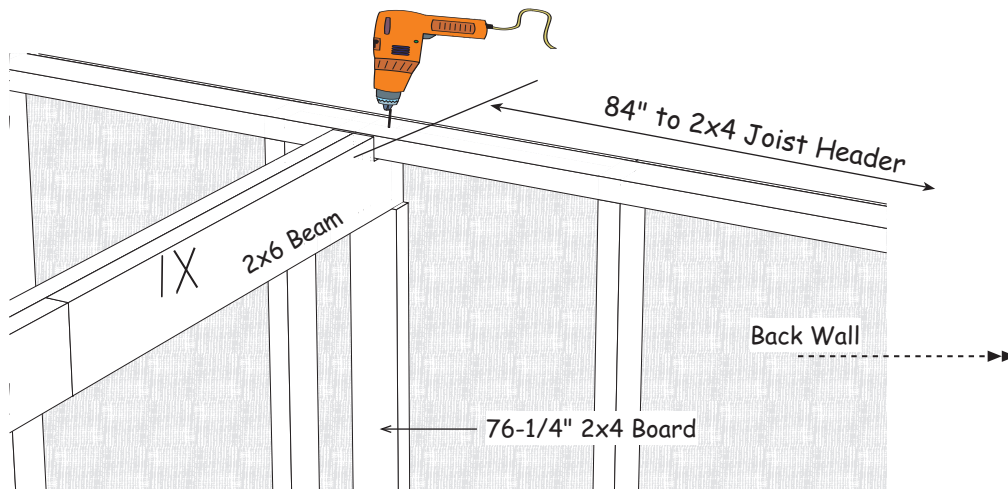
3. Repeat to Install the other beam with the 'X' marks on the beam facing the front wall. When the front beam is installed there will be 56" between the beams

Step 14   Install 2x4 Floor Joists

Install 84" long 2x4s between the front and
rear beams and the 2x4s joist headers. Use
2x4 hangers with 1-1/2" hanger nails.

2x4 Hanger

Cover 'X' Marks on
2x6 Beams
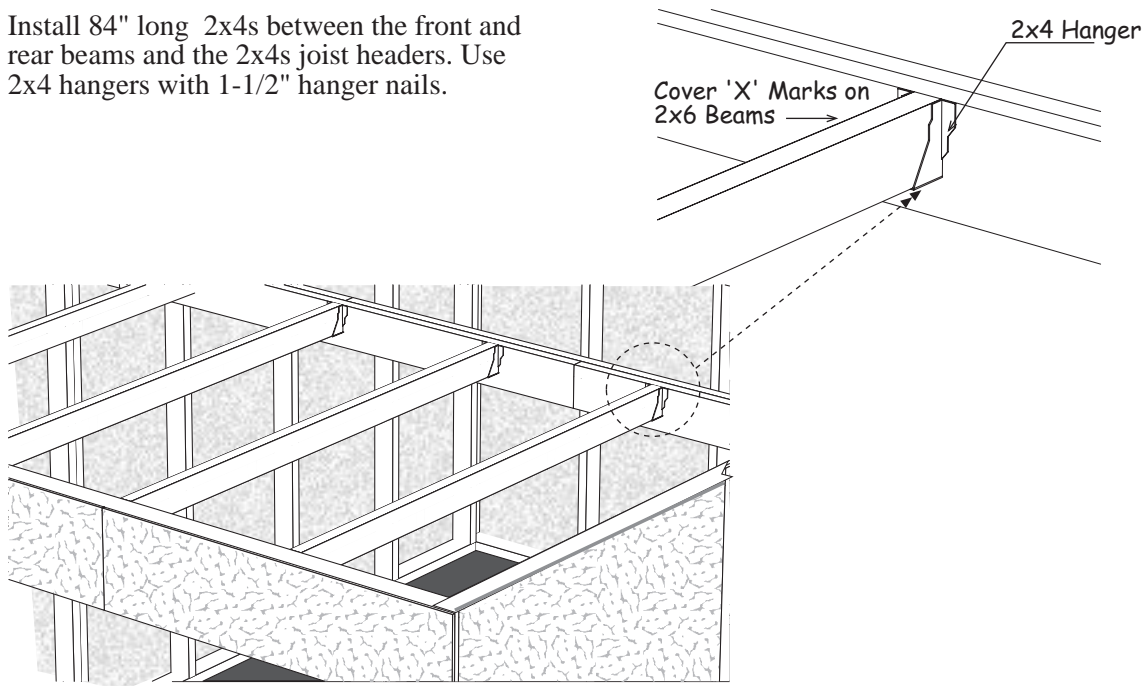
Step 15   Install Loft Flooring

1. Install 7/16" OSB loft flooring on back loft floor joists. Loft flooring is flush with outside of
    top wall plate. Use 7d sinkers spaced 12" apart. *See layout pattern below:*

3-1/2" x 56" Filler

4'x6' Flooring

44"'x 6' Flooring

4'x6' Flooring
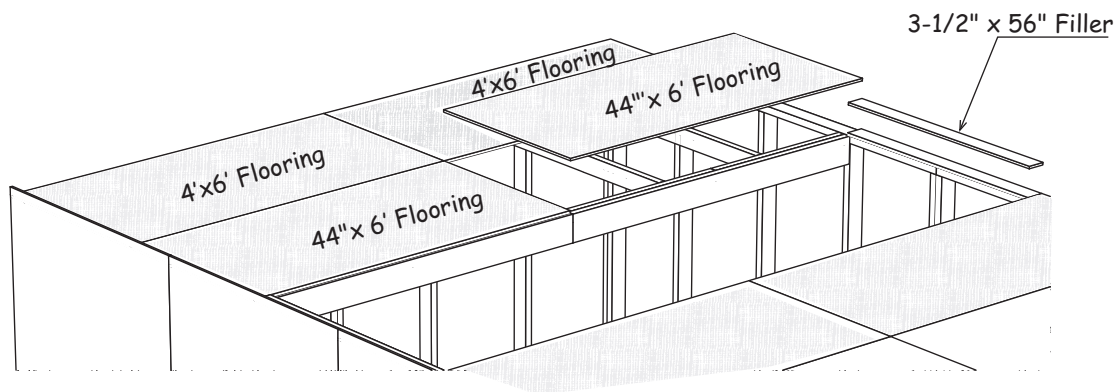
44"x 6' Flooring

2. Repeat to install loft flooring at the front of the building.

3. Install 3-1/2" x 56" floor fillers on top of side wall plates between the loft flooring.

Step 16   Install Wall Trim

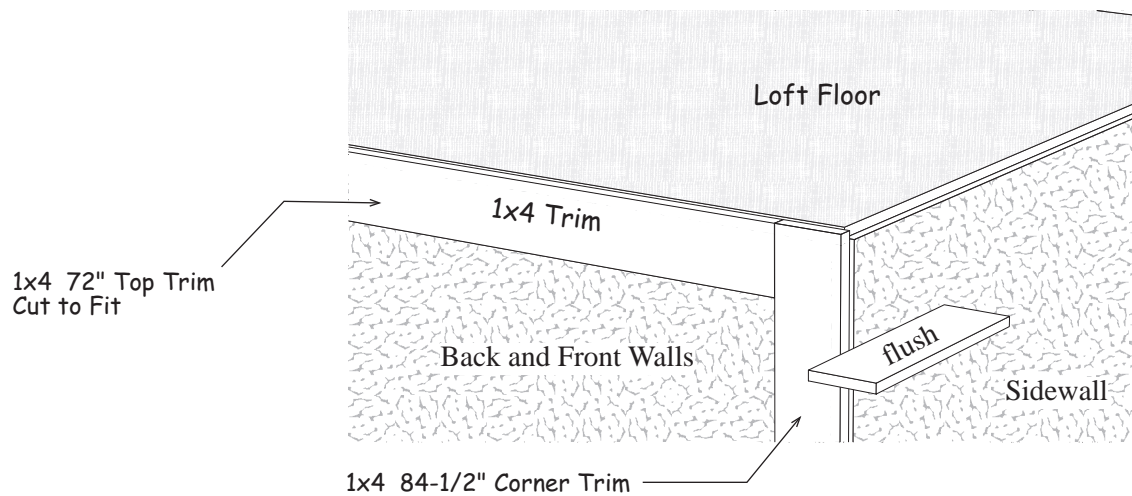1. Install (2) two 84-1/2" long 1x4 corner trim on the back wall, flush with the siding on the sidewall. Use 8d galv. nails.

2. Install (2) two 1x4-72" trim boards across the top of the back wall. Cut to fit. Install the 1x4 boards flush with the top of the loft flooring. *See diagram below.*

3. Repeat steps 1-2 for front wall trim.

Loft Floor

1x4 Trim

1x4 72" Top Trim
Cut to Fit

Back and Front Walls

flush

Sidewall

1x4 84-1/2" Corner Trim

Step 17   Set Rear and Front Gables

1. Install the rear gable on the rear wall. The siding on the gable must <u>extend over the 1x4 trim</u> board, not behind it. *See detail 'D' on next page*. Nail gable to loft flooring. Use 10d nails.
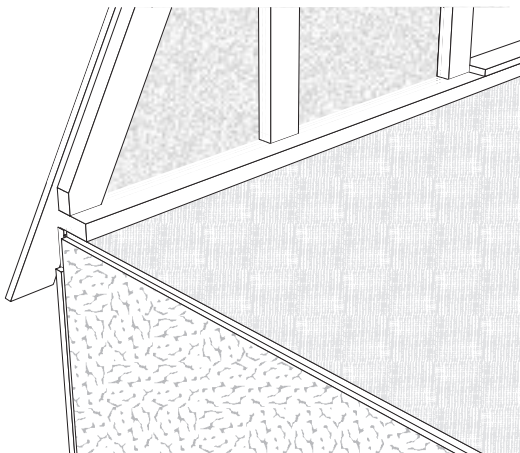
WARNING: The gable ends are heavy and awkward. You'll need helpers to lift and set gables in place.

Step 17   Set Rear and Front Gables Continued

2. Install (2) two 61" long 1x4 gable trim flush with the top edge of the gable. Install the ends with <u>blue marks together</u>. Install trim with 8d galv. nails.

3. Install (2) two 42-1/2" long 1x4 gable trim flush with the side edge of <u>the gable</u>.

4. Install the front gable. <u>Do Not apply trim</u>.

1x4 Trim

DETAIL 'D'

1x4 Trim

Bottom Edge of Gable Siding
Overlaps Top Wall Trim

Rear Gable & Wall
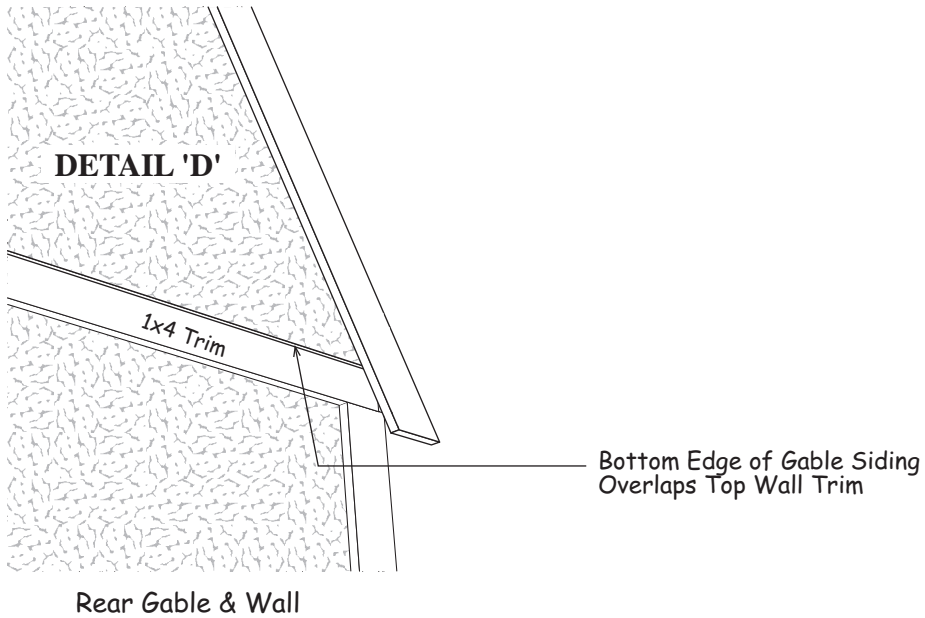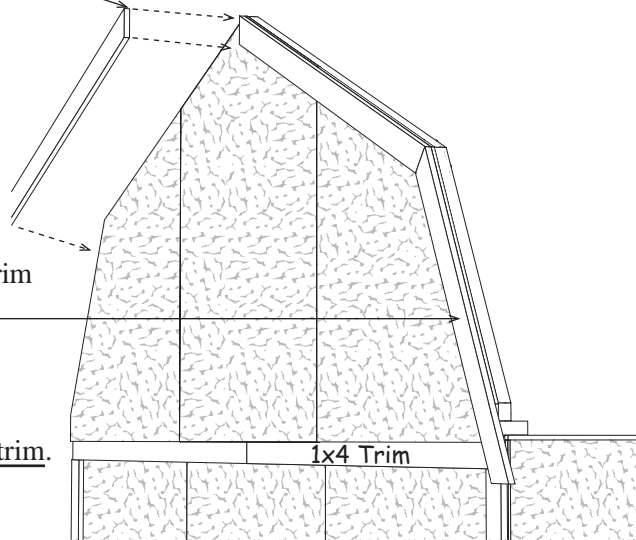
Step 18   Install 2x4 Truss Plates

1. Install a 72" long 2x4 tie plate against the rear gable and flush with outside edge of wall plate. Install more 64" long 2x4 tie plates. Cut the last 64" tie plate to finish. Use 10d nails.

2. Repeat to install tie plates on the opposite side.

Rear Gable

72" Tie Plate

64" Tie Plate

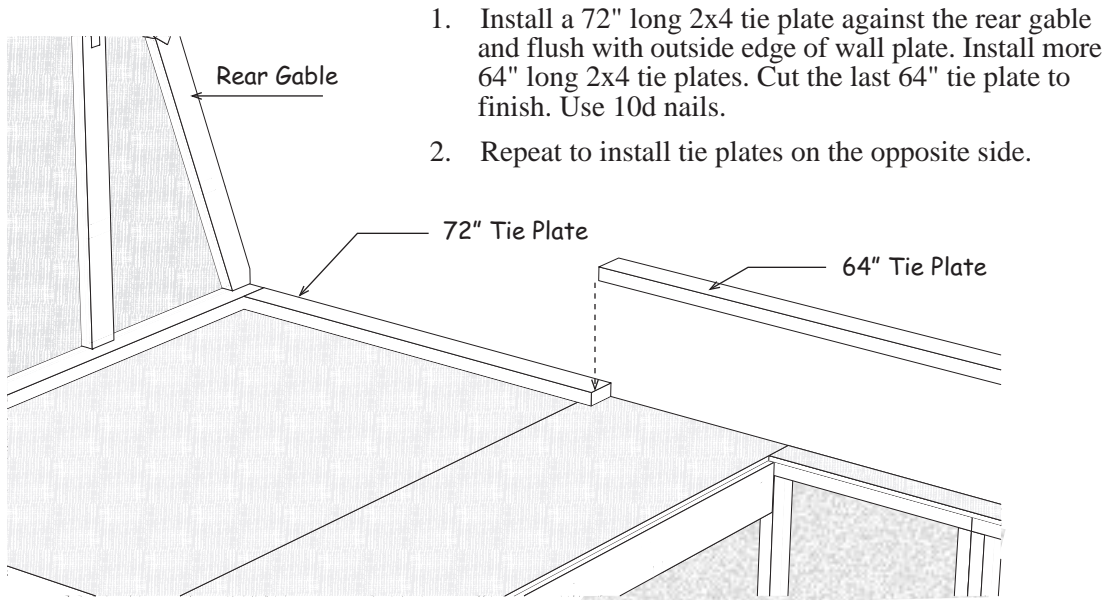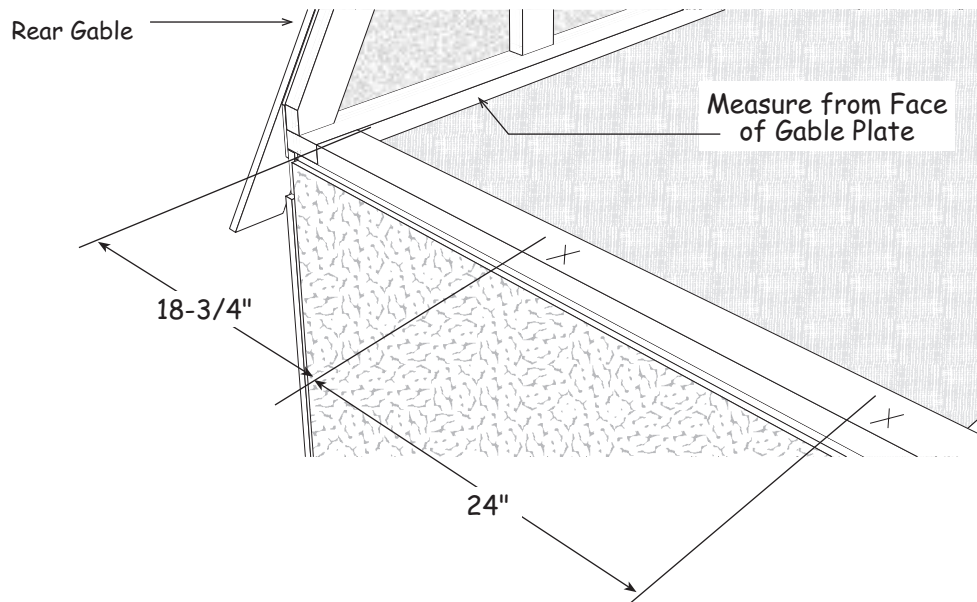3. Layout the truss spacing. Measure from the inside face of the 2x4 **gable plate** to mark the location of the first truss. The last truss space will be more than 24".

    Important: When marking the opposite wall, place the 'X' mark on the same side of the line so your trusses are parallel when they are installed.

Rear Gable

Measure from Face of Gable Plate

18-3/4"

24"

Step 19   Install Trusses & Soffit Boards

1. Place trusses over the 'X' marks and secure trusses to 2x4 tie plate using 2x4 hangers and 1-1/2" hanger nails.

2. Locate 65-1/4" long soffit boards that have a beveled edge. Install one of these boards flush with the top of the siding and butting against the rear gable trim. Secure soffit boards to the top wall plate with 3" long screws. Install the 48" long soffit board to fit behind 2x3 boards on the front gable.

Metal Truss Hanger
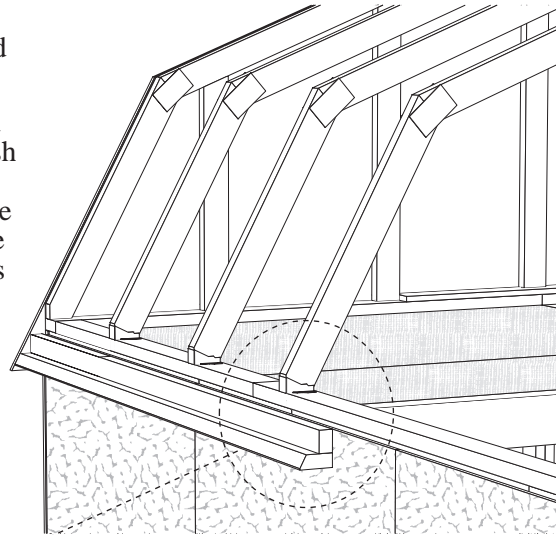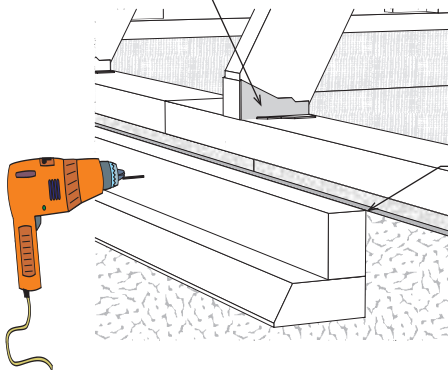
Soffit Board Flush With Siding

Step 20   Install Roof Sheathing

Straight Edge

1. Install a 42" x 72" OSB roof panel flush with the face of the rear gable trim. Use a straight edge to align the top of the sheathing with the top of the truss. Continue adding sheathing following the layout on the next page. Use 7d sinkers, spaced 12" apart.

2. Repeat step 1for opposite side.

☞ To prevent the nails from protruding thought the bottom of the soffit board, do not nail at an angle when nailing roof sheathing to the soffit boards.
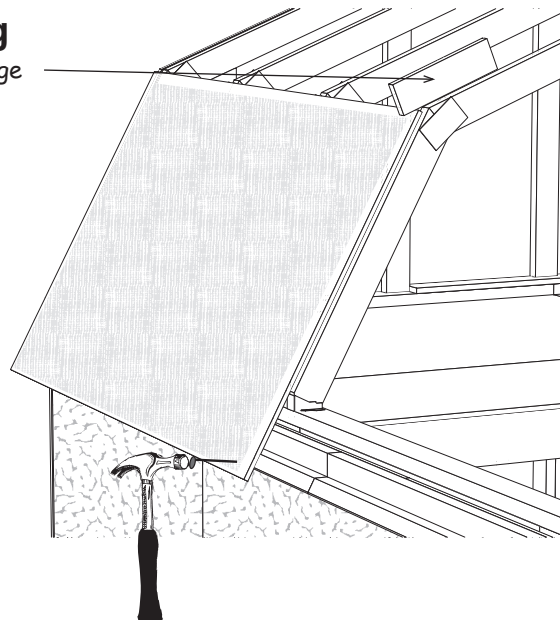
Step 20   Install Roof Sheathing Continued

3. Install roof sheathing on the upper roof trusses below. Insert (2) two plyclips onto roof sheathing between every truss on the top row. The top row of roof sheathing will be about 1" below the ridge to allow for ventilation. Use 7d sinkers, spaced 12" apart.

4. Repeat for the opposite side.

5. Install 80" long 1x4 trim boards on the corners of the sidewalls.

Plyclip

15" x 72"   13" x 48"   13" x 72"

48" x 48"   13" x 60"

48" x 48"

48" x 72"   48" x 48"   48" x 36"

Install This Row First
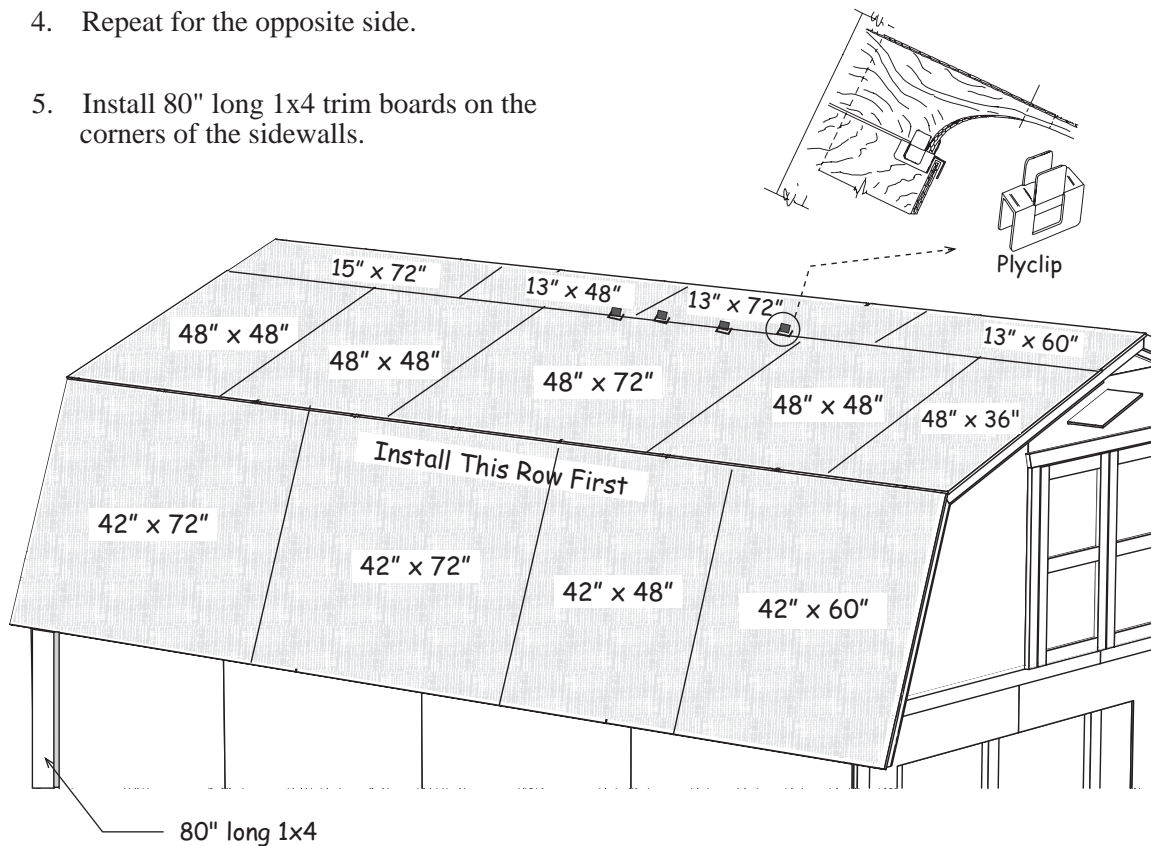
42" x 72"

42" x 72"

42" x 48"

42" x 60"

80" long 1x4

Step 21   Install Roofing — Not Supplied in Kit

Install metal roof edging perimeter of the roof area. If you are not installing shingles at this time, you can purchase felt paper to protect the sheathing. Install the felt paper before you install the metal roof edge.

Install shingles according to the instructions on the wrapper. If you need more detailed instructions on installing shingles, there are good publications at book stores or newsstands.

Truss

Air Space

Optional ridge vent provides ideal ventilation.
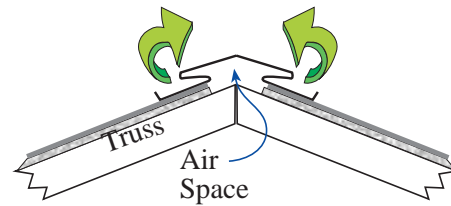
Building Tip: Install ridge vent in lieu of shingles caps. Ridge vent provides ideal ventilation, preventing heat and moisture from damaging your building or its contents.

Step 22   Install Front Gable Overhang

61" long 2x3

Ends With Blue Mark

1. With a helper holding (2) two install 61" and (2) two 43-1/2" long 2x3s against the roof sheathing, screw the sheathing to the 2x3s with 1-1/2" long screws. Important; the roof sheathing should extend 3/4" beyond the 2x3s to receive the 1x4 gable trim installed later.

2. Install (2) two 4-1/2" long 2x3s, at the bottom, between the 43-1/2" 2x3s.

43-1/2" long 2x3

Siding Extends 3/4"

4-1/2" long 2x3 Block

3. Install (2) two 1x4-64" gable trim, *with the ends marked with a blue line,* together at the ridge.

4. Install (2) two 43-1/2" long 1x4 trim boards on the sides.

5. Install 7-1/2" wide soffit panels under the overhang. Use 6d galv. nails.

6. Install 35-3/4" long 1x3 trim boards flush with each side of the loft door opening. Install a 50" long trim board across the top. *If door opening is cut out the siding will extend 3/4" below the top trim board.*

7. Install loft doors using 4" hinges and 1-1/4" long hinge screws. Install barrel bolt to the back of the right door to prevent door from opening.
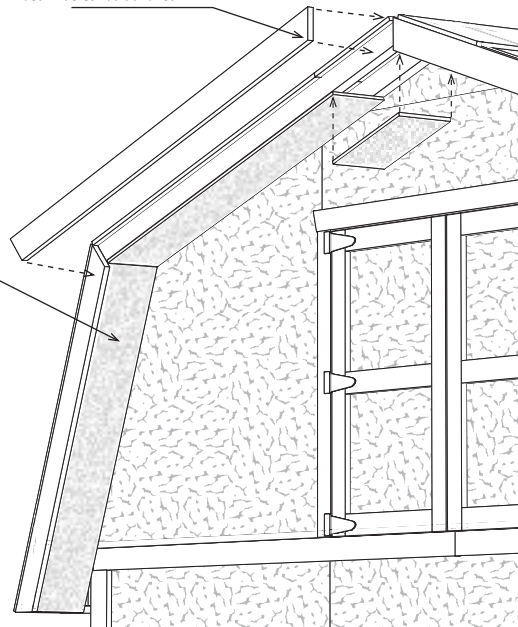
Step 23   Install Doors
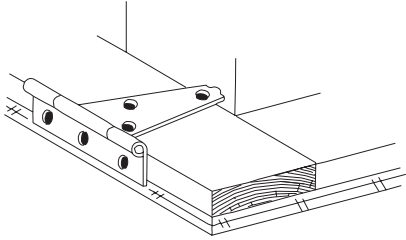
1. Lay the left door with the trim facing up. The siding on the left door extends past the door trim. See detail below.

2. Install 5" hinges to the left side of the door frame. To position the hinge properly, hold the rectangular plate against the frame. Use 1-3/4" black screws.

3. Install hinges to the right side of the other door.

4. Install lx4x76-3/4" trim boards along each side of the door opening. Tack these boards with a couple nails; you may want to move the trim later when you install the doors.

5. Install a 1x4x81-3/4" board, *that has angle cuts on both ends*, over the door opening.

Before you fasten the hinges to the door trim, temporarily prop the doors in the opening. *Tip; set the door stop on a piece of siding to help hold the door in place*. Leave a space between the doors and the side trim to allow room for the doors to expand when they absorb moisture.

If your door opening is out of square, the space around the doors will not be even. You can reposition the side trim to make allowances for this. The side trim does not have to be flush with the frame of the door opening. You can move the trim in or out to make the door spacing equal.

Secure hinges to trim with 1-3/4" screws.

Front of Left Door

Siding Extends Past Trim

Back of Left Door
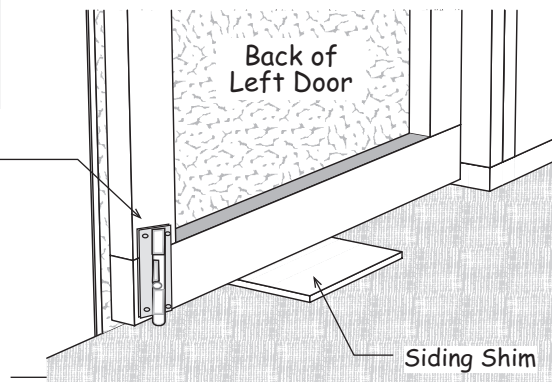
6. Install a barrel bolt, on the lower back of the door to secure this door in place when closed. Drill a hole for the round shaft to drop into.

7. Install another bolt at the top of the door.

8. Install door latch.

Siding Shim

Millccreek 12'x 20' Barn kit

Qty.	2x4 Framing		Size	
10	Floor Joist for Loft		84	"
40	Wall Studs	black ends	80	1/4"
2	Wall Studs wuth Door Jacks		80	1/4"
17	Wall Plates		72	"
12	Wall Plates		68	1/2"
4	Gable Top Rafter		61	"
4	Gable Side Rafter		34	3/4"
10	Wall & Tie Plates		64	"
6	Wall & Tie Plate Material		48	"
2	Gable Studs		42	3/4"
4	Gable Studs		40	3/4
4	Gable Studs		30	3/4
	2x6 Framing			
2	Door Header		75	"
6	Beam Material		72	"
4	Beam Material		36	"
	2x3 Framing			
4	Gable Extension	top	61	"
4	Gable Extension	side	42	1/2"
2	Gable Extension Blocks		4	1/2"
11	Truss Ridge Blocks		31	3/4"
	Miscellaneous Lumber			
10	24 Blocks for Truss Jig		10" to 12"	
1	OSB Door Header Filler		5" x 75"	
18	Wood Gussets for Trusses		9" x 32"	
2	7/16" Loft Floor Fillers		3-1/2" x 56"	

Lower Wall Siding		*Gable Siding & Soffit*	
14	48" x 84"	4	48" x 56"
2	12" x 84"	4	24" x 39-3/4"
2	7-3/4" x 36"	4	7-1/2" x 48"
		2	7-1/2" x 24

Packing List   7-Feb-2014

Qty.	White Pine Trim		Size	
4	1x4	Gable Trim	61	"
4	1x4	Gable Trim	42	1/2"
4	1x4	Lower Wall Trim	72	"
4	1x4	Corner Trim	84	1/2"
4	1x4	Corner Trim	80	"
1	1x4	Door Trim	81	3/4"
2	1x4	Door Trim	76	3/4"
1	1x3	Loft Door Trim	50	"
2	1x3	Loft Door Trim	35	3/4"

Qty.	Pre-built Components
18	Pre-built Truss Halves
6	3-1/2" x 84" Pre-built Soffit Boards
2	3-1/2" x 65-1/4" Pre-built Soffit Boards
2	36" x 76" Pre-built Barn Doors
2	21" x 35-1/2" Loft Door Frames

	Hardware			
6	lb. 10d Sinkers	38	7/16" Plyclips	
4	lb. 8d Galv.÷	2	Bottle Glue	
4	lb. 7d Sinkers	84	Black Screws	
3	lb. 6d Common	38	Truss Hangers	
1	lb. 6d Galv.	1	Door Hasp	
2	lb. Hanger Nails	2	Barrell Bolts	
17	1x4 Drive-on Plate	100	Wood Screws	
6	4" Door Hinges	6	5" Door Hinges	
2	3/4" Plywood Gable Nailer	3-1/2" x 42-3/4"		

	7/16" OSB Sheathing		
6	48" x 72"	2	48" x 36"
4	44" x 72"	6	48" x 48"
4	42" x 72"	4	13" x 72"
2	42" x 48"	2	13" x 60"
2	42" x 60"	2	13" x 48"

Roof Covering: 14 bundle shingles - 9 pcs. roof edge - optional felt paper 1 roll